SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Maine Kavai Examiner #: 76689 Date: 5/27/01
Art Unit: 1627 Phone Number 30[illegible] Serial Number: 09/584,573
Mail Box and Bldg/Room Location: 3201 Results Format Preferred (circle): PAPER DISK E-MAIL
office: 3D11

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: _____

Inventors (please provide full names): see attached

Earliest Priority Filing Date: 6/1997

***For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.**

Please search structures of attached claim 33 in all patent & non-patent databases.

Note - moiety denoted "T" is crucial
Please provide all hits, if possible.

Thank you!

1412
1221

Point of Contact:
Mary Hale
Technical Info. Specialist
CM1 12D16 Tel: 308-4258

art unit/a
search/a
examiner/a

STAFF USE ONLY

Searcher: _____
Searcher Phone #: _____
Searcher Location: _____
Date Searcher Picked Up: _____
Date Completed: 5/29
Searcher Prep & Review Time: 120
Clerical Prep Time: _____
Online Time: 1169

Type of Search

NA Sequence (#) _____
AA Sequence (#) _____
Structure (#) 11
Bibliographic _____
Litigation _____
Fulltext _____
Patent Family _____
Other _____

Vendors and cost where applicable

STN 3801.64 - 1411.59
Dialog _____
Questel/Orbit _____
Dr.Link _____
Lexis/Nexis _____
Sequence Systems _____
WWW/Internet _____
Other (specify) _____

PTO-1590 (1-2000)

Garcia
884873

	ENTRY	SESSION
CA SUBSCRIBER PRICE	-11.76	-11.76

FILE 'REGISTRY' ENTERED AT 13:39:50 ON 06 APR 2001
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

STRUCTURE FILE UPDATES: 4 APR 2001 HIGHEST RN 330150-69-1
DICTIONARY FILE UPDATES: 4 APR 2001 HIGHEST RN 330150-69-1

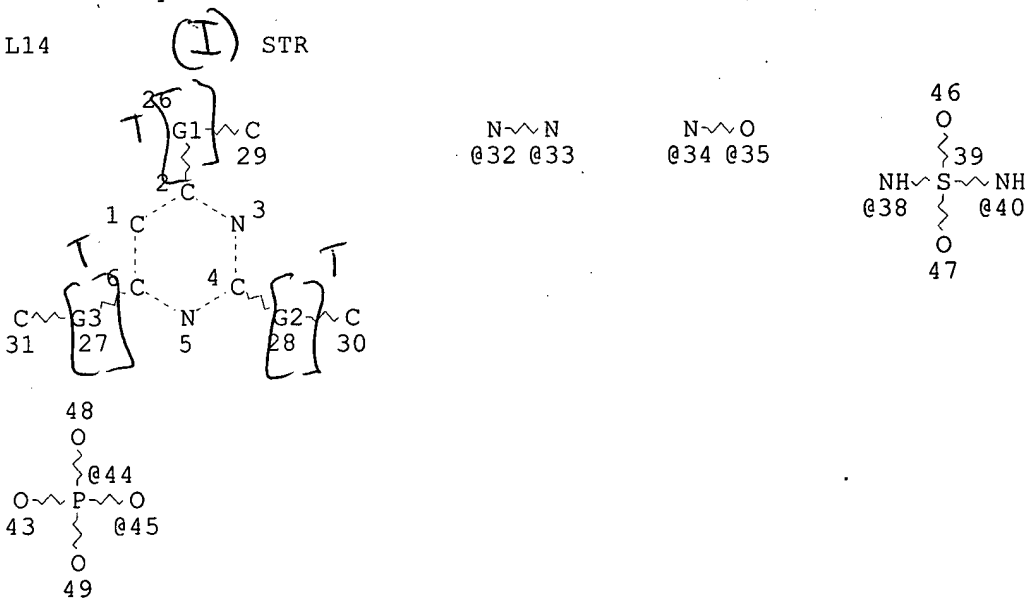
TSCA INFORMATION NOW CURRENT THROUGH July 8, 2000

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Structure search limits have been increased. See HELP SLIMIT for details.

=> d l16 que stat;s l16 or l16;d 9000 18000 reg

L14 (I) STR



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T = VAR G2=32-4 33-30/34-4 35-30/38-4 40-30/N/O/S/SE/44-4 45-30
T = VAR G3=32-6 33-31/34-6 35-31/38-6 40-31/44-6 45-31/N/O/S/SE
NODE ATTRIBUTES:
NSPEC IS RC AT 29
NSPEC IS RC AT 30
NSPEC IS RC AT 31
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 26

STEREO ATTRIBUTES: NONE
L16 18388 SEA FILE=REGISTRY SSS FUL L14

100.0% PROCESSED 65653 ITERATIONS 18388 ANSWERS
SEARCH TIME: 00.00.12

L23 18388 L16 OR L16

9000 RN 147113-41-5 REGISTRY
18000 RN 39069-69-7 REGISTRY

=> s l23 range=(147113-41-5,)

L24 9000 L16 OR L16

=> s l23 range=(38069-69-7,147113-41-5)

L25 9028 L16 OR L16

=> del l25 y;s l23 range=(39069-69-7,147113-41-5)

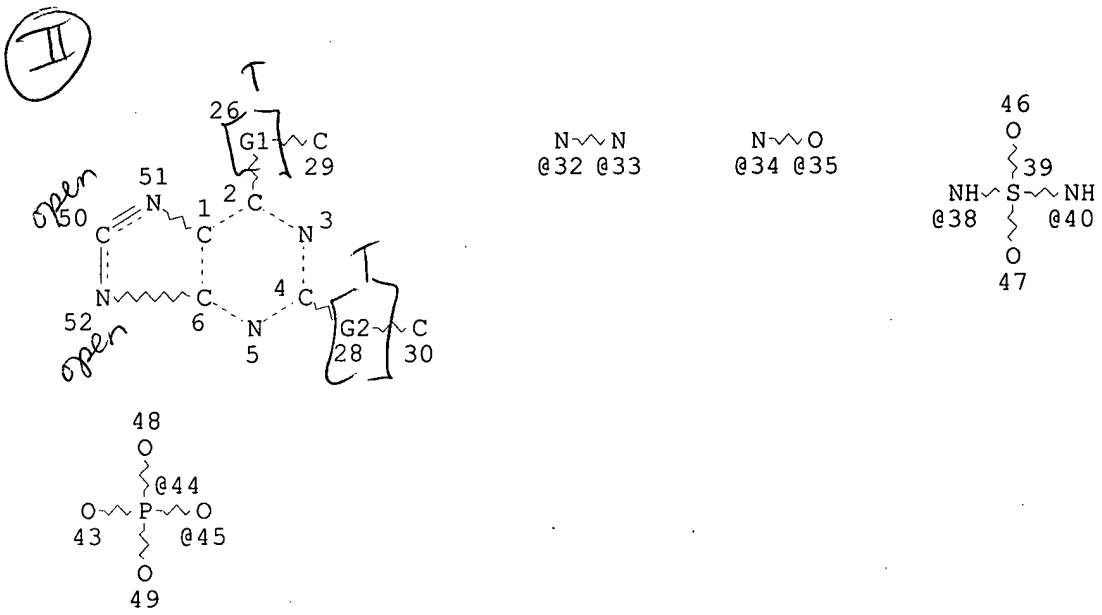
L25 9001 L16 OR L16

=> s l23 range=(,39069-69-7)

L26 389 L16 OR L16

=> d l19 que stat;d l22 que stat;fil medl,caplus,biosis,embase;s (l24 or l25) and l19 and l22

L17 STR



T= VAR G1=32-2 33-29/34-2 35-29/38-2 40-29/N/O/S/SE/44-2 45-29
T" VAR G2=32-4 33-30/34-4 35-30/38-4 40-30/N/O/S/SE/44-4 45-30
NODE ATTRIBUTES:
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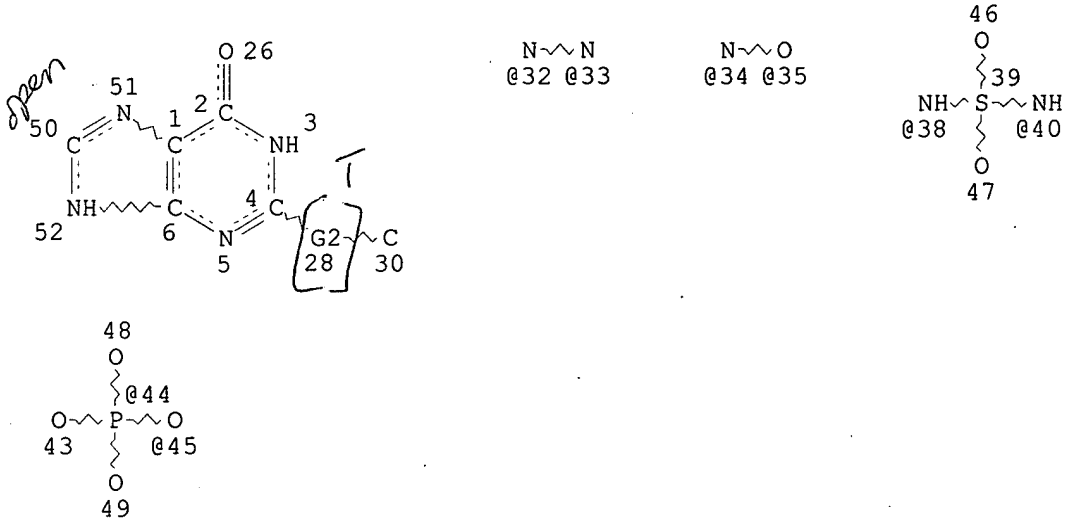
NSPEC IS RC AT 30
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 27

STEREO ATTRIBUTES: NONE
L19 4933 SEA FILE=REGISTRY SSS FUL L17

100.0% PROCESSED 10151 ITERATIONS 4933 ANSWERS
SEARCH TIME: 00.00.12

L20 STR



VAR G2=32-4 33-30/34-4 35-30/38-4 40-30/N/O/S/SE/44-4 45-30
NODE ATTRIBUTES:
NSPEC IS RC AT 30
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 26

STEREO ATTRIBUTES: NONE
L22 307 SEA FILE=REGISTRY SSS FUL L20

100.0% PROCESSED 13563 ITERATIONS 307 ANSWERS
SEARCH TIME: 00.00.11

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	406.89	1649.65

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-11.76

FILE 'MEDLINE' ENTERED AT 13:53:05 ON 06 APR 2001

FILE 'CAPLUS' ENTERED AT 13:53:05 ON 06 APR 2001
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COPYRIGHT (C) 2001 BIOSIS(R)

FILE 'EMBASE' ENTERED AT 13:53:05 ON 06 APR 2001
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<------User Break------>
u
SEARCH ENDED BY USER

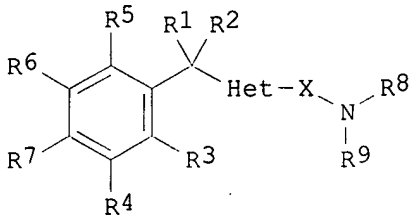
=> s (l24 or l25) and l19 and l22

L27 0 FILE MEDLINE
L28 1 FILE CAPLUS
L29 0 FILE BIOSIS
L30 0 FILE EMBASE

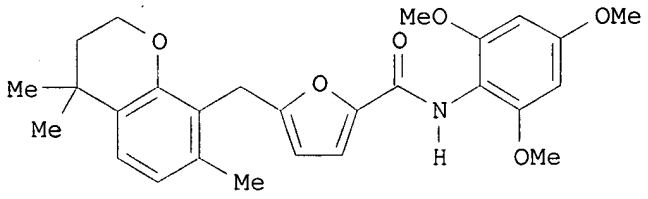
TOTAL FOR ALL FILES
L31 1 (L24 OR L25) AND L19 AND L22

=> d cbib abs hitstr

L31 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2001 ACS
2000:241135 Document No. 132:279106 Non-peptide GnRH agents, methods and intermediates for their preparation. Anderson, Mark Brian; Vazir, Haresh N.; Luthin, David Robert; Paderes, Genevieve Deguzman; Pathak, Ved P.; Christie, Lance Christopher; Hong, Yufeng; Tompkins, Eileen Valenzuela; Li, Haitao; Faust, James (Agouron Pharmaceuticals, Inc., USA; et al.). PCT Int. Appl. WO 2000020358 A2 20000413, 444 pp. DESIGNATED STATES: W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1999-US18790 19990820. PRIORITY: US 1998-97520 19980820.
GI



I



II

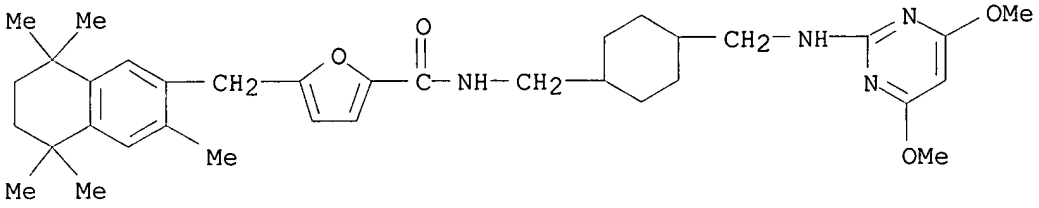
AB Non-peptide GnRH agents capable of inhibiting the effect of gonadotropin-releasing hormone are described. The compds. and their pharmaceutically acceptable salts, multimers, prodrugs, and active metabolites are suitable for treating mammalian reproductive disorders and steroid hormone-dependent tumors as well as for regulating fertility, where suppression of gonadotropin release is indicated. The compds. include those of formula I [X = C:O, C:S, S:O, or SO2; Het = 5-membered NOS-heterocycle; R1, R2 = H, alkyl; R3-R7 = H, halo, (un)substituted alkyl, aryl, heteroaryl, CH2OR, OR, CO2R; R = alkyl, aryl, etc.; adjacent rings positions such as R6R7 may form (un)substituted 5- or 6-membered ring with up to 4 heteroatoms; R8 = lipophilic moiety such as alkyl, aryl, CH2OR, OR, etc.; R9 = H, (un)substituted alkyl]. Methods and intermediates for synthesizing the compds. are also described. For instance, 4,4,7-trimethylchroman (prepn. given) was alkylated in the 6- and 8-positions using Et 5-(chloromethyl)-2-furoate (46% total yield), and the resulting esters were hydrolyzed to a mixt. of acids. This unsepd. mixt. was treated with SOCl2 and amidated with 2,4,6-trimethoxyphenylamine-HCl to give the invention compd. II and its chroman-6-position isomer, which were sepd. by HPLC. Several compds. exhibited high affinity (<100 nM) at human GnRH receptors. The compds. antagonized GnRH-stimulated inositol phosphate accumulation in cells with recombinant human GnRH receptors, and an example compd. reduced plasma LH levels in castrated male rats. Various biol. data for several hundred compds. are given.

IT **263848-23-3P 263851-39-4P 263857-23-4P 263857-27-8P**
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(target compd.; prepn. of non-peptide GnRH agents for regulating

gonadotropin secretion)

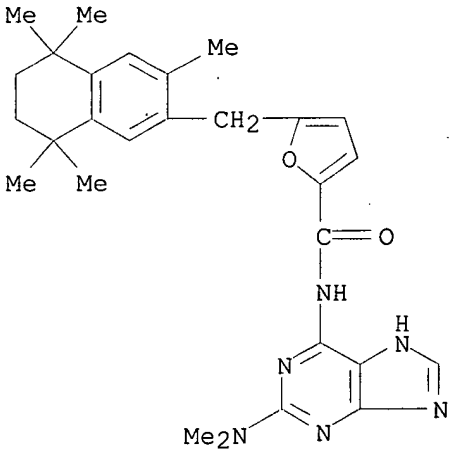
RN 263848-23-3 CAPLUS

CN 2-Furancarboxamide, N-[[4-[[(4,6-dimethoxy-2-pyrimidinyl)amino]methyl]cyclohexyl]methyl]-5-[(5,6,7,8-tetrahydro-3,5,5,8,8-pentamethyl-2-naphthalenyl)methyl]- (9CI) (CA INDEX NAME)



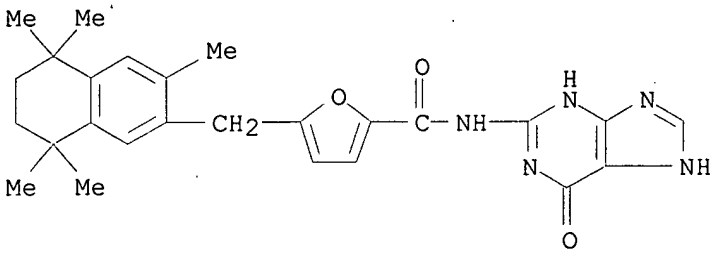
RN 263851-39-4 CAPLUS

CN 2-Furancarboxamide, N-[2-(dimethylamino)-1H-purin-6-yl]-5-[(5,6,7,8-tetrahydro-3,5,5,8,8-pentamethyl-2-naphthalenyl)methyl]- (9CI) (CA INDEX NAME)

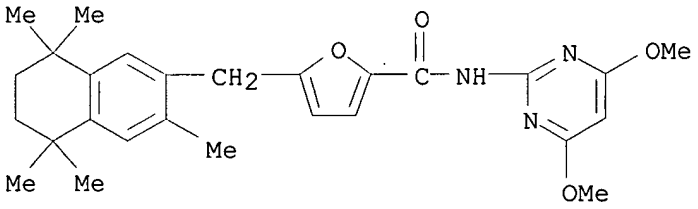


RN 263857-23-4 CAPLUS

CN 2-Furancarboxamide, N-(6,7-dihydro-6-oxo-1H-purin-2-yl)-5-[(5,6,7,8-tetrahydro-3,5,5,8,8-pentamethyl-2-naphthalenyl)methyl]- (9CI) (CA INDEX NAME)



RN 263857-27-8 CAPLUS
CN 2-Furancarboxamide,
N-(4,6-dimethoxy-2-pyrimidinyl)-5-[(5,6,7,8-tetrahydro-
3,5,5,8,8-pentamethyl-2-naphthalenyl)methyl]- (9CI) (CA INDEX NAME)



=> fil reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	1401.60	3051.25

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-0.59	-12.35

FILE 'REGISTRY' ENTERED AT 13:57:06 ON 06 APR 2001
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STRUCTURE FILE UPDATES: 4 APR 2001 HIGHEST RN 330150-69-1
DICTIONARY FILE UPDATES: 4 APR 2001 HIGHEST RN 330150-69-1

TSCA INFORMATION NOW CURRENT THROUGH July 8, 2000

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Structure search limits have been increased. See HELP SLIMIT for details.

=> e malonato/cn 5

```
E1            1      MALONATE-TRANSPORTING PROTEIN (PSEUDOMONAS PUTIDA GENE
MDCL)
                     /CN
E2            1      MALONATE-TRANSPORTING PROTEIN (PSEUDOMONAS PUTIDA GENE
MDCM)
                     /CN
E3            0 --> MALONATO/CN
E4            1      MALONATO 1,2-DIAMINOCYCLOHEXANE PLATINUM(II)/CN
E5            1      MALONATO O-PHENYLENEDIAMINE PLATINUM(II)/CN

=> dis his


     (FILE 'HOME' ENTERED AT 13:30:50 ON 06 APR 2001)

     FILE 'REGISTRY' ENTERED AT 13:31:06 ON 06 APR 2001
L1                STR
L2             50 S L1
L3          17170 S L1 FUL
L4          17170 S L3 OR L3
L5           9000 S L4  RAN=(135867-73-1,)
L6           8171 S L4  RAN=(,135867-73-1)

     FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE' ENTERED AT 13:34:08 ON 06 APR 2001
L7              0 FILE MEDLINE
L8             20 FILE CAPLUS
L9              0 FILE BIOSIS
L10             0 FILE EMBASE
     TOTAL FOR ALL FILES
L11            20 S (L5 OR L6)(L)(MIXT OR MIX?)

     FILE 'REGISTRY' ENTERED AT 13:39:50 ON 06 APR 2001
L12               STR L1
L13            50 S L12
L14               STR L12\
L15            50 S L14
L16         18388 S L14 FUL
L17               STR L14
L18            50 S L17
L19          4933 S L17 FUL
L20               STR L17
L21            19 S L20
L22           307 S L20 FUL
L23         18388 S L16 OR L16
L24          9000 S L23  RAN=(147113-41-5,)
L25          9001 S L23  RAN=(39069-69-7,147113-41-5)
L26           389 S L23  RAN=(,39069-69-7)

     FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE' ENTERED AT 13:53:05 ON 06 APR 2001
L27             0 FILE MEDLINE
L28             1 FILE CAPLUS
L29             0 FILE BIOSIS
L30             0 FILE EMBASE
     TOTAL FOR ALL FILES
L31             1 S (L24 OR L25) AND L19 AND L22
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     FILE 'REGISTRY' ENTERED AT 13:57:06 ON 06 APR 2001
                E MALONATO/CN 5
L32             1 S E4
L33               STR
L34            50 S L33
                  E MALONATE/CN 5
L35             1 S E3
                  E PYRROLIDINYL/CN 5
                  E PYRROLIDINE/CN 5
L36             1 S E3
                  E PIPERIDINE/CN 5
L37             1 S E3
                  E PIPERIDINYLMETHYLENE/CN 5
                  E MORPHOLINE/CN 5
L38             1 S E3
L39               STR L14
L40            36 S L39
                  BATCH SSS FUL L40 GARCIAPT1/B
L41               STR L17
L42            35 S L41
L43          5070 S L41 FUL
                  SAVE L43 GARCIAPT2/A
L44               STR L20
L45             6 S L44
L46           314 S L44 FUL
                  SAVE GARCIAPT3/A L46

=> d l43 que stat;d l46 que stat;fil medl,caplus,biosis,embase;s l43 and l46

L41               STR
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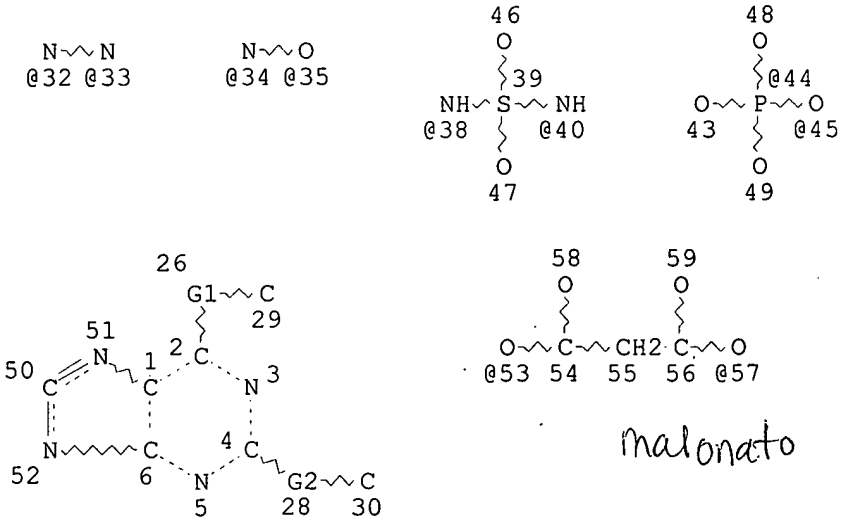

malonato

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VAR G1=32-2 33-29/34-2 35-29/38-2 40-29/N/O/S/SE/44-2 45-29/HY/53-2 57-29
VAR G2=32-4 33-30/34-4 35-30/38-4 40-30/N/O/S/SE/44-4 45-30/HY/53-4 57-30
NODE ATTRIBUTES:
NSPEC   IS RC     AT  29
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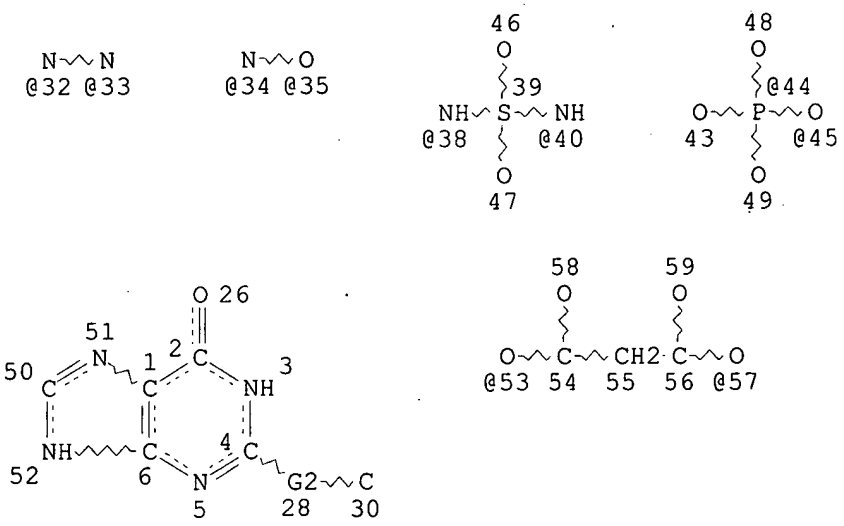
NSPEC IS RC AT 30
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 34

STEREO ATTRIBUTES: NONE
L43 5070 SEA FILE=REGISTRY SSS FUL L41

100.0% PROCESSED 139298 ITERATIONS 5070 ANSWERS
SEARCH TIME: 00.00.25

L44 STR



VAR G2=32-4 33-30/34-4 35-30/38-4 40-30/N/O/S/SE/44-4 45-30/HY/53-4 57-30
NODE ATTRIBUTES:
NSPEC IS RC AT 30
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 33

STEREO ATTRIBUTES: NONE .
L46 314 SEA FILE=REGISTRY SSS FUL L44

100.0% PROCESSED 78598 ITERATIONS 314 ANSWERS
SEARCH TIME: 00.00.16

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	299.51	3350.76

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-12.35

FILE 'MEDLINE' ENTERED AT 14:09:35 ON 06 APR 2001

FILE 'CAPLUS' ENTERED AT 14:09:35 ON 06 APR 2001
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FILE 'EMBASE' ENTERED AT 14:09:35 ON 06 APR 2001
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L47 0 FILE MEDLINE
L48 46 FILE CAPLUS
L49 0 FILE BIOSIS
L50 0 FILE EMBASE

TOTAL FOR ALL FILES
L51 46 L43 AND L46

=> s l51(l)(mixt? or cook p?/au or combinator?)

PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'L47(L)(MIXT?'
L52 0 FILE MEDLINE
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'L48(L)(MIXT?'
L53 6 FILE CAPLUS
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'L49(L)(MIXT?'
L54 0 FILE BIOSIS
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'L50(L)(MIXT?'
L55 0 FILE EMBASE

TOTAL FOR ALL FILES
L56 6 L51(L)(MIXT? OR COOK P?/AU OR COMBINATOR?)

=> d 1-6 cbib abs hitstr

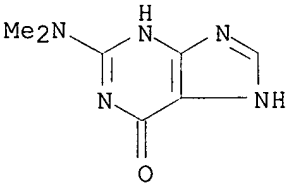
L56 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2001 ACS
2000:384565 Document No. 133:28236 Methods and compositions for performing an array of chemical reactions on a support surface. Zebala, John A. (Syntrix Biochip, Inc., USA). PCT Int. Appl. WO 2000033084 A2 20000608,

157 pp. DESIGNATED STATES: W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1999-US28021 19991123. PRIORITY: US 1998-PV110527 19981201; US 1999-326479 19990604.

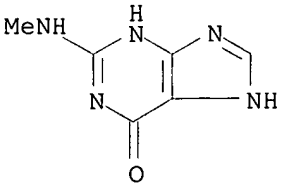
AB Compns. and methods are provided for performing regionally selective solid-phase chem. synthesis of org. compds. Such methods may employ solvent-resistant photoresist compns. to prep. arrays of org. compds., such as ligands, for use within a variety of diagnostic and drug discovery assays. Ligand-arrays may comprise, for example, nucleobase polymers that are resistant to degradative enzymes. DNA probes and enalaprilat analogs were synthesized on glass slides using a photoresist method and used in hybridization assays and ACE inhibitory activity screening.

IT **1445-15-4 10030-78-1 20758-33-2**
RL: DEV (Device component use); PRP (Properties); USES (Uses)
(array of nucleobase polymers contg.; methods and compns. for performing arrays of chem. reactions on support surfaces using photoresists)

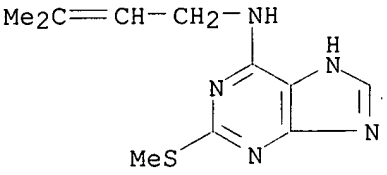
RN 1445-15-4 CAPLUS
CN 6H-Purin-6-one, 2-(dimethylamino)-1,7-dihydro- (9CI) (CA INDEX NAME)



RN 10030-78-1 CAPLUS
CN 6H-Purin-6-one, 1,7-dihydro-2-(methylamino)- (9CI) (CA INDEX NAME)

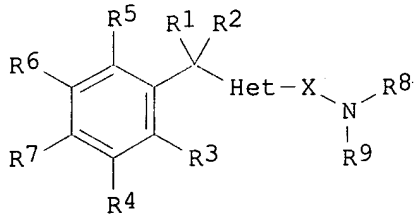


RN 20758-33-2 CAPLUS
CN 1H-Purin-6-amine, N-(3-methyl-2-butenyl)-2-(methylthio)- (9CI) (CA INDEX NAME)

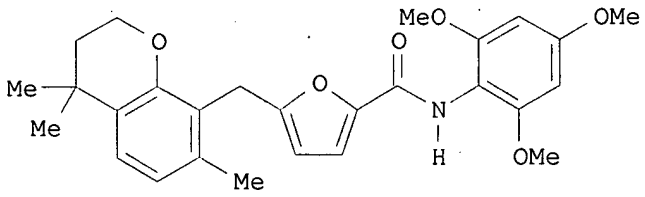


L56 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2001 ACS
2000:241135 Document No. 132:279106 Non-peptide GnRH agents, methods and intermediates for their preparation. Anderson, Mark Brian; Vazir, Haresh N.; Luthin, David Robert; Paderes, Genevieve Deguzman; Pathak, Ved P.; Christie, Lance Christopher; Hong, Yufeng; Tompkins, Eileen Valenzuela; Li, Haitao; Faust, James (Agouron Pharmaceuticals, Inc., USA; et al.). PCT Int. Appl. WO 2000020358 A2 20000413, 444 pp. DESIGNATED STATES: W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1999-US18790 19990820. PRIORITY: US 1998-97520 19980820.

GI



I



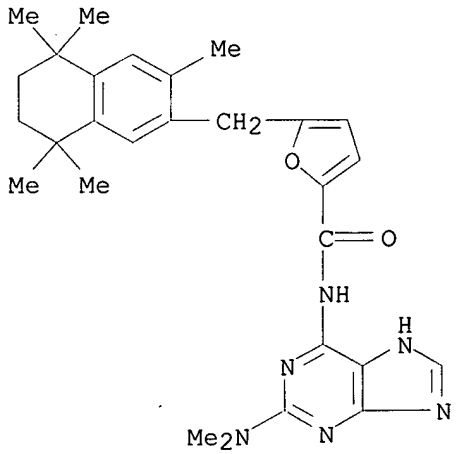
II

AB Non-peptide GnRH agents capable of inhibiting the effect of gonadotropin-releasing hormone are described. The compds. and their pharmaceutically acceptable salts, multimers, prodrugs, and active metabolites are suitable for treating mammalian reproductive disorders and

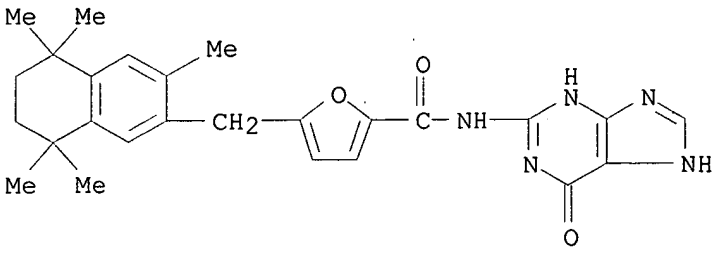
steroid hormone-dependent tumors as well as for regulating fertility, where suppression of gonadotropin release is indicated. The compds. include those of formula I [X = C:O, C:S, S:O, or SO2; Het = 5-membered NOS-heterocycle; R1, R2 = H, alkyl; R3-R7 = H, halo, (un)substituted alkyl, aryl, heteroaryl, CH2OR, OR, CO2R; R = alkyl, aryl, etc.; adjacent rings positions such as R6R7 may form (un)substituted 5- or 6-membered ring with up to 4 heteroatoms; R8 = lipophilic moiety such as alkyl, aryl, CH2OR, OR, etc.; R9 = H, (un)substituted alkyl]. Methods and intermediates for synthesizing the compds. are also described. For instance, 4,4,7-trimethylchroman (prepn. given) was alkylated in the 6- and 8-positions using Et 5-(chloromethyl)-2-furoate (46% total yield), and the resulting esters were hydrolyzed to a **mixt.** of acids. This unsepd. **mixt.** was treated with SOCl2 and amidated with 2,4,6-trimethoxyphenylamine-HCl to give the invention compd. II and its chroman-6-position isomer, which were sepd. by HPLC. Several compds. exhibited high affinity (<100 nM) at human GnRH receptors. The compds. antagonized GnRH-stimulated inositol phosphate accumulation in cells with recombinant human GnRH receptors, and an example compd. reduced plasma LH levels in castrated male rats. Various biol. data for several hundred compds. are given.

IT **263851-39-4P 263857-23-4P**
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(target compd.; prepn. of non-peptide GnRH agents for regulating gonadotropin secretion)

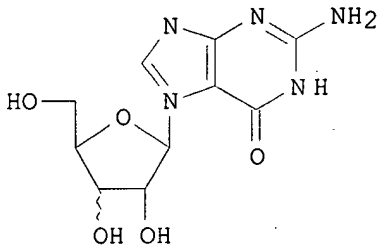
RN 263851-39-4 CAPLUS
CN 2-Furancarboxamide, N-[2-(dimethylamino)-1H-purin-6-yl]-5-[(5,6,7,8-tetrahydro-3,5,5,8,8-pentamethyl-2-naphthalenyl)methyl]- (9CI) (CA INDEX NAME)



RN 263857-23-4 CAPLUS
CN 2-Furancarboxamide, N-(6,7-dihydro-6-oxo-1H-purin-2-yl)-5-[(5,6,7,8-tetrahydro-3,5,5,8,8-pentamethyl-2-naphthalenyl)methyl]- (9CI) (CA INDEX NAME)



L56 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2001 ACS
1996:744343 Document No. 126:89695 Nucleic Acid Related Compounds. 93. A Solution for the Historic Problem of Regioselective Sugar-Base Coupling To Produce 9-Glycosylguanines or 7-Glycosylguanines. Robins, Morris J.; Zou, Ruiming; Guo, Zhiqiang; Wnuk, Stanislaw F. (Department of Chemistry and Biochemistry, Brigham Young University, Provo, UT, 84602-5700, USA). J. Org. Chem., 61(26), 9207-9212 (English) 1996. CODEN: JOCEAH. ISSN: 0022-3263. OTHER SOURCES: CASREACT 126:89695. Publisher: American Chemical Society.
GI



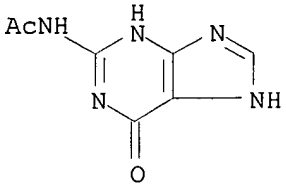
I

AB Per(trimethylsilyl)-2-N-acylguanine derivs. and tetra-O-acylpentofuranoses were coupled [tin(IV) chloride or titanium(IV) chloride catalysis] to give predominant formation of 7-glycosylguanines. With TiCl4, a org./aq. partitioning allowed isolation of 7-glycosylguanines from the 7/9 isomer **mixts.** Per(trimethylsilyl)-2-N-acyl-6-O-(diphenylcarbamoyl)guanine derivs. and tetra-O-acylpentofuranoses underwent regioselective coupling (trimethylsilyl trifluoromethanesulfonate catalysis) to give 9-glycosylguanines. The 6-O-(diphenylcarbamoyl)peracyl-9-.beta.-D-ribofuranosyl isomer was shown to be both the kinetic and thermodn. coupling product. Deprotection of all of the peracyl coupling products was effected under mild conditions to

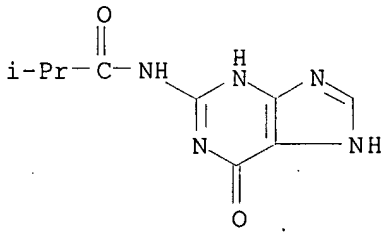
give good to high yields of guanine nucleoside analogs. These methodologies provide solns. for the regioselective prepn. of 7- and 9-glycosylguanine nucleosides, e.g. I.

IT **19962-37-9 21047-89-2**
RL: RCT (Reactant)
(regioselective sugar-base coupling with nucleobases in prepn. of glycosylguanine nucleosides)

RN 19962-37-9 CAPLUS
CN Acetamide, N-(6,7-dihydro-6-oxo-1H-purin-2-yl)- (9CI) (CA INDEX NAME)

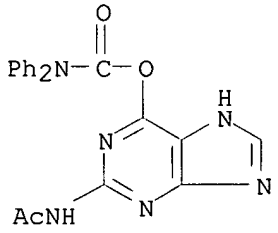


RN 21047-89-2 CAPLUS
CN Propanamide, N-(6,7-dihydro-6-oxo-1H-purin-2-yl)-2-methyl- (9CI) (CA INDEX NAME)



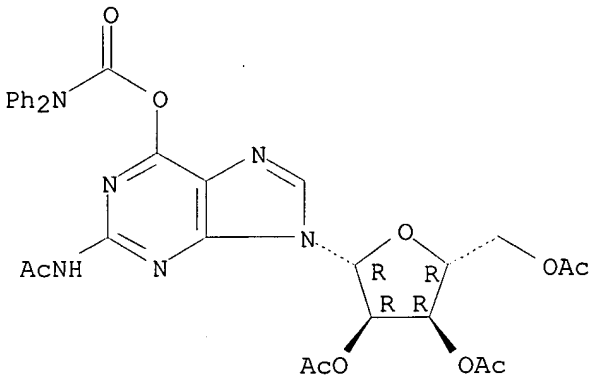
IT **112233-74-6P 112233-75-7P 112233-76-8P**
112233-77-9P 112233-78-0P 185610-53-1P
185610-60-0P 185610-62-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(regioselective sugar-base coupling with nucleobases in prepn. of glycosylguanine nucleosides)

RN 112233-74-6 CAPLUS
CN Carbamic acid, diphenyl-, 2-(acetylamino)-1H-purin-6-yl ester (9CI) (CA INDEX NAME)



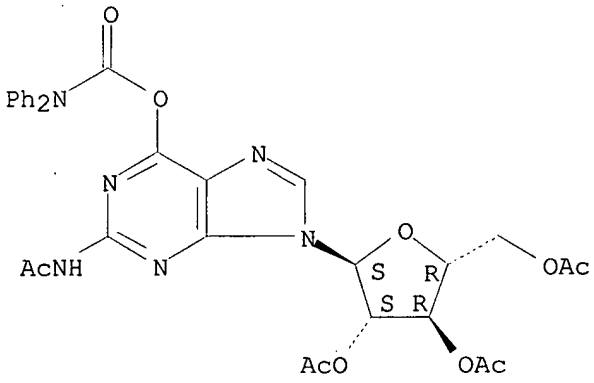
RN 112233-75-7 CAPLUS
CN Guanosine, N-acetyl-, 2',3',5'-triacetate 6-(diphenylcarbamate) (9CI) (CA
INDEX NAME)

Absolute stereochemistry.



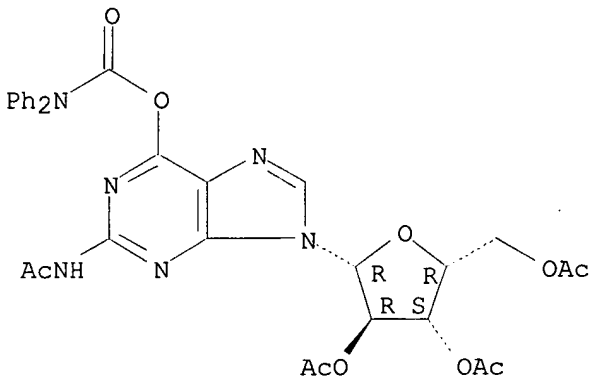
RN 112233-76-8 CAPLUS
CN Carbamic acid, diphenyl-,
2-(acetylamino)-9-(2,3,5-tri-O-acetyl-.alpha.-D-
arabinofuranosyl)-9H-purin-6-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

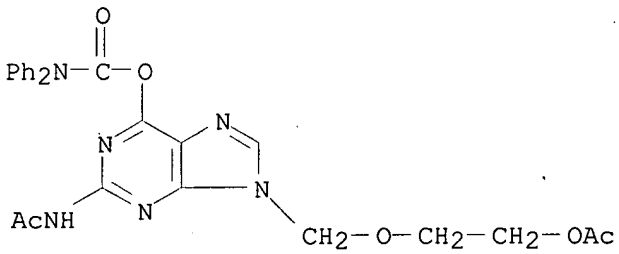


RN 112233-77-9 CAPLUS
CN Carbamic acid, diphenyl-, 2-(acetylamino)-9-(2,3,5-tri-O-acetyl-.beta.-D-
xylofuranosyl)-9H-purin-6-yl ester (9CI) (CA INDEX NAME)

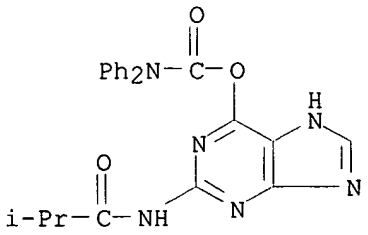
Absolute stereochemistry.



RN 112233-78-0 CAPLUS
CN Carbamic acid, diphenyl-,
2-(acetylamino)-9-[[2-(acetyloxy)ethoxy]methyl]-
9H-purin-6-yl ester (9CI) (CA INDEX NAME)

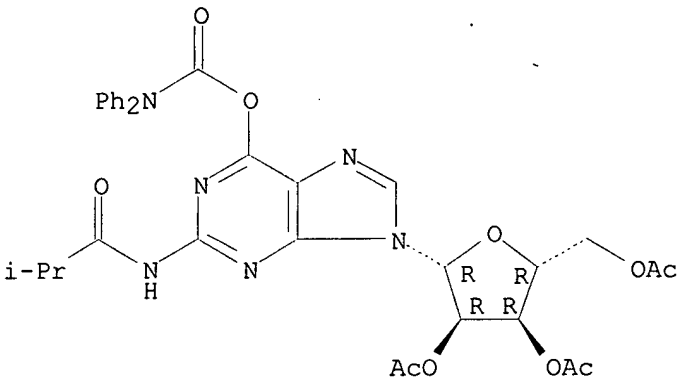


RN 185610-53-1 CAPLUS
CN Carbamic acid, diphenyl-, 2-[(2-methyl-1-oxopropyl)amino]-1H-purin-6-yl
ester (9CI) (CA INDEX NAME)



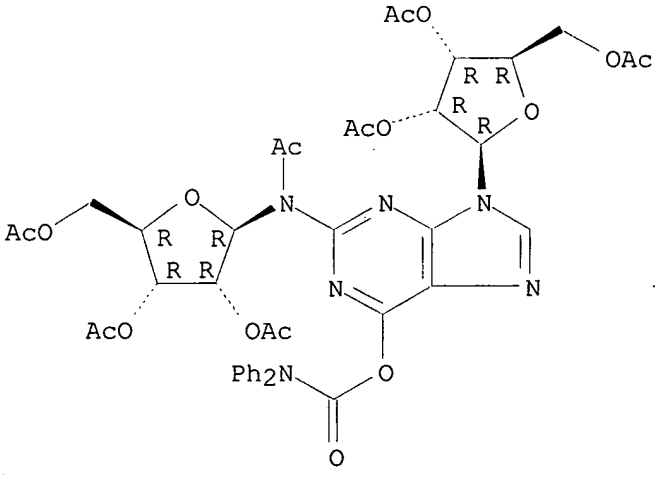
RN 185610-60-0 CAPLUS
CN Guanosine, N-(2-methyl-1-oxopropyl)-, 2',3',5'-triacetate
6-(diphenylcarbamate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

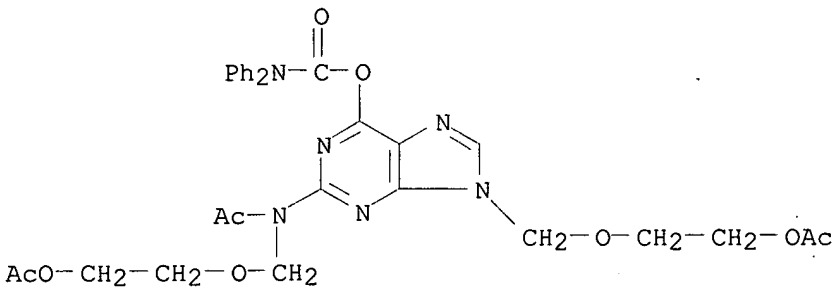


RN 185610-62-2 CAPLUS
CN Guanosine, N-acetyl-N-(2,3,5-tri-O-acetyl-.beta.-D-ribofuranosyl)-, 2',3',5'-triacetate 6-(diphenylcarbamate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **185610-54-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(regioselective sugar-base coupling with nucleobases in prepn. of glycosylguanine nucleosides)
RN 185610-54-2 CAPLUS
CN Carbamic acid, diphenyl-, 2-[acetyl[[2-(acetyloxy)ethoxy]methyl]amino]-9-[[2-(acetyloxy)ethoxy]methyl]-9H-purin-6-yl ester (9CI) (CA INDEX NAME)



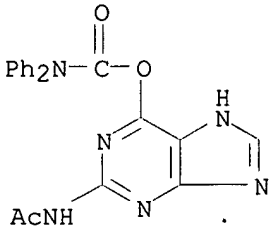
L56 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2001 ACS
1995:994426 Document No. 124:87803 Preparation of substituted N-ethylglycine
derivatives for the preparation of peptide nucleic acids and peptide nucleic acid/deoxyribonucleic acid hybrids.. Breipohl, Gerhard; Uhlmann, Eugen; Knolle, Jochen (Hoechst A.-G., Germany). Eur. Pat. Appl. EP 672661
A1 19950920, 31 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE. (German). CODEN: EPXXDW.
APPLICATION: EP 1995-103333 19950308. PRIORITY: DE 1994-4408534 19940314.

AB PGXCH2CH2N(COYB)CH2CO2H [PG = urethane- or trityl-type protecting group labile to weak acid; X = NH, O, S; Y = CH2, NH, O; B = (protected) nucleoside (replacement) base], were prepd. Thus, N-[(4-methoxyphenyl)diphenylmethyl]aminoethylglycine Me ester (prepn. given) in DMF was treated sequentially with 3,4-dihydro-4-oxo-1,2,3-benzotriazine, 4-ethylmorpholine, N4-benzoyl-N1-carboxymethylcytosine in DMF, and with DCC; the **mixt.** was stirred 20 h at room temp. to give the coupling product, which was sapond. with aq. NaOH/dioxane to give N-[(4-methoxyphenyl)diphenylmethyl]aminoethyl-N-[[1-(N4-benzoyl)cytosyl]acetyl]glycine.

IT **112233-74-6**
RL: RCT (Reactant)
(prepn. of substituted N-ethylglycine derivs. for the prepn. of peptide
nucleic acids and peptide nucleic acid/DNA hybrids)

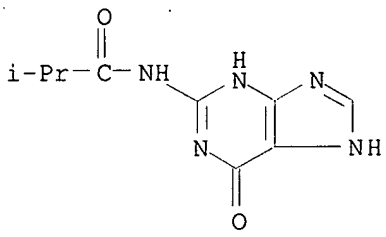
RN 112233-74-6 CAPLUS

CN Carbamic acid, diphenyl-, 2-(acetylamino)-1H-purin-6-yl ester (9CI) (CA INDEX NAME)

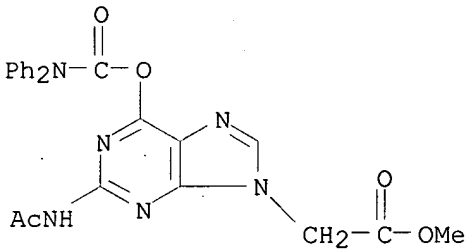


IT **21047-89-2P 172405-24-2P 172405-25-3P**

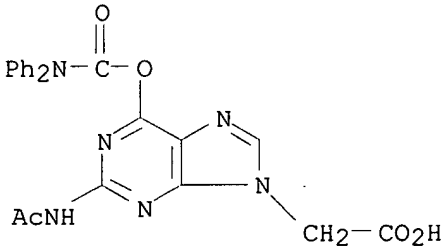
172405-26-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. of substituted N-ethylglycine derivs. for the prepn. of peptide
nucleic acids and peptide nucleic acid/DNA hybrids)
RN 21047-89-2 CAPLUS
CN Propanamide, N-(6,7-dihydro-6-oxo-1H-purin-2-yl)-2-methyl- (9CI) (CA INDEX NAME)



RN 172405-24-2 CAPLUS
CN 9H-Purine-9-acetic acid, 2-(acetylamino)-6-[[(diphenylamino)carbonyl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

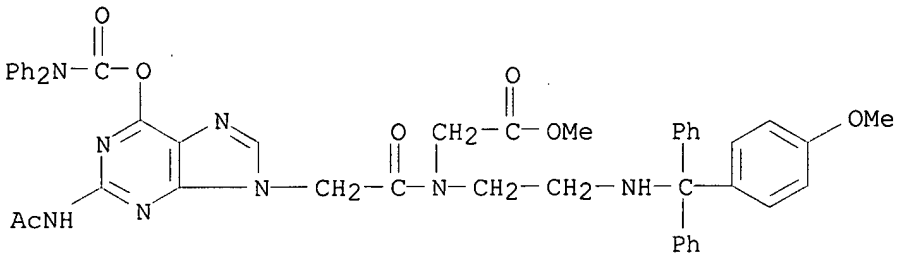


RN 172405-25-3 CAPLUS
CN 9H-Purine-9-acetic acid, 2-(acetylamino)-6-[[(diphenylamino)carbonyl]oxy]- (9CI) (CA INDEX NAME)

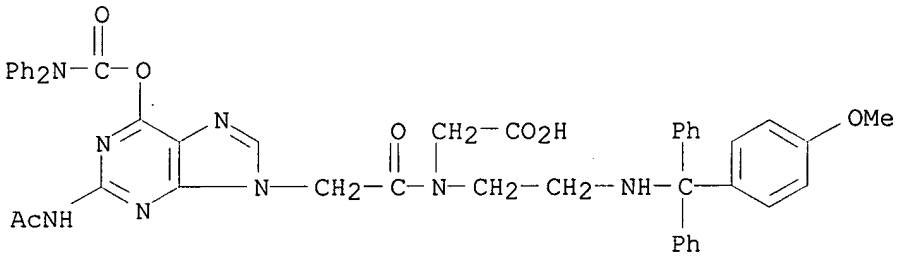


RN 172405-26-4 CAPLUS
CN Glycine, N-[[2-(acetylamino)-6-[[(diphenylamino)carbonyl]oxy]-9H-purin-9-

yl]acetyl]-N-[2-[[(4-methoxyphenyl)diphenylmethyl]amino]ethyl]-, methyl ester (9CI) (CA INDEX NAME)

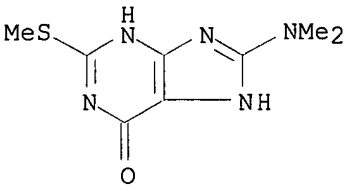


IT **172405-34-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of substituted N-ethylglycine derivs. for the prepn. of peptide
nucleic acids and peptide nucleic acid/DNA hybrids)
RN 172405-34-4 CAPLUS
CN Glycine, N-[[2-(acetylamino)-6-[[(diphenylamino)carbonyl]oxy]-9H-purin-9-yl]acetyl]-N-[2-[[(4-methoxyphenyl)diphenylmethyl]amino]ethyl]- (9CI) (CA
INDEX NAME)

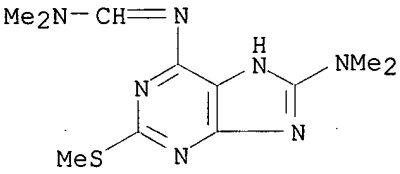


L56 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2001 ACS
1975:497209 Document No. 83:97209 New synthesis of disubstituted 8-aminopurine derivatives. Yoneda, Fumio; Higuchi, Masatsugu; Hayakawa, Akio (Fac. Pharm. Sci., Kumamoto Univ., Kumamoto, Japan). Synthesis (4), 264-5 (English) 1975. CODEN: SYNTBF.
GI For diagram(s), see printed CA Issue.
AB Aminopurines I (X = H2, R = Me, Ph, MeS, EtS) were prepd. in 80-95% yield by treating nitrosopyrimidines II with excess Me2NCH(OEt)2 (III) and then dilg. the reaction **mixt.** with H2O. When the reaction **mixt.** was dild. with ether (methyleneamino)purines I (X = Me2NCH; R = Me, Ph, MeS, EtS) were obtained in 69-84% yield. Similarly treating nitrosopyrimidines IV (R = MeS, EtS) with excess III gave 40% and 45% oxopurines V (R = MeS, EtS), resp.
IT **43005-36-3P 56472-00-5P 56472-01-6P**
56472-02-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

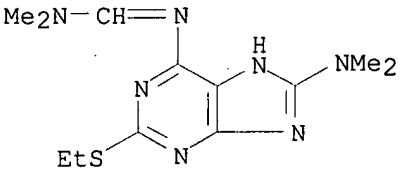
RN 43005-36-3 CAPLUS
CN 6H-Purin-6-one, 8-(dimethylamino)-1,7-dihydro-2-(methylthio)- (9CI) (CA INDEX NAME)



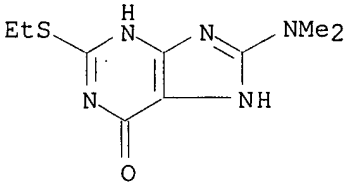
RN 56472-00-5 CAPLUS
CN Methanimidamide, N'-[8-(dimethylamino)-2-(methylthio)-1H-purin-6-yl]-N,N-dimethyl- (9CI) (CA INDEX NAME)



RN 56472-01-6 CAPLUS
CN Methanimidamide, N'-[8-(dimethylamino)-2-(ethylthio)-1H-purin-6-yl]-N,N-dimethyl- (9CI) (CA INDEX NAME)



RN 56472-02-7 CAPLUS
CN 6H-Purin-6-one, 8-(dimethylamino)-2-(ethylthio)-1,7-dihydro- (9CI) (CA INDEX NAME)

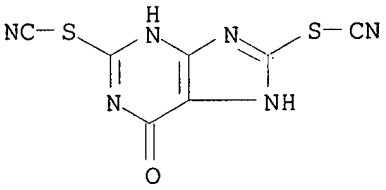


1970:90522 Document No. 72:90522 Polythiocyanatopurines. Saneyoshi, Mineo (Seikagaku Kogyo Co., Ltd.). Japan. JP 45002179 B4 19700124 Showa, 2 pp. (Japanese). CODEN: JAXXAD. APPLICATION: JP 19650921.

AB Reaction of a di- or trimercapto-substituted-purine with a cyanogen halide is described. In an example, 2.12 g BrCN in EtOH is dropped into a cold (0.degree.)**mixt.** of 1.88 g 2,6-dimercapto-9-methylpurine and 100 ml 0.2N NaOH, the **mixt.** stirred at 0-5.degree. 1 hr, stirred 1 hr more with 2 ml N HCl, filtered, and the mass washed with cold H2O and EtOH to give 1.96 g 2,6-dithiocyanato-9-methylpurine, m. 240.degree. (aq. EtOH). Similarly prepd. are the following compds.: 2,8-dithiocyanato-6-hydroxypurine, m. 240.degree., 2,6,8-trithiocyanato-purine, m. 240.degree., and 6,8-dithiocyanatopurine, m. 240.degree..

IT **6220-39-9P 26821-00-1P 26821-02-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 6220-39-9 CAPLUS
CN Thiocyanic acid, 6-hydroxypurine-2,8-diyl ester (7CI, 8CI) (CA INDEX NAME)



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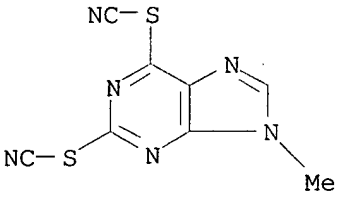

RN 26821-02-3 CAPLUS
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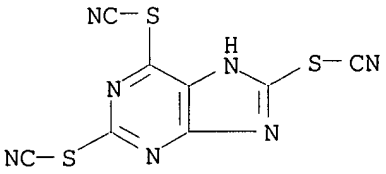

=> fil casrea

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-3.53	-15.88

FILE 'CASREACT' ENTERED AT 14:10:56 ON 06 APR 2001
USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT

FILE CONTENT:1985 - 1 Apr 2001 (VOL 102 ISS 1 - VOL 134 ISS 14)

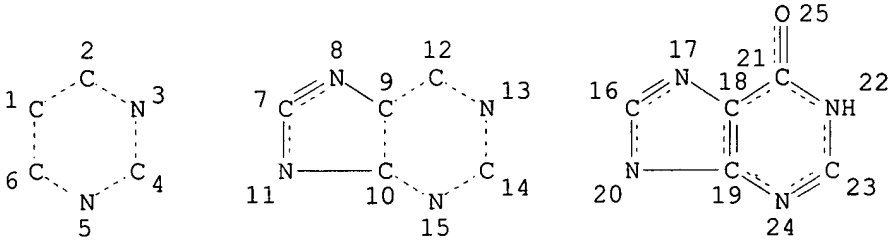
>>> Several important enhancements to CASREACT functional group <<<
>>> searching were introduced. Enter HELP FGA or HELP FGC for more <<<
>>> information. <<<

This file contains CAS Registry Numbers for easy and accurate substance identification.

Structure search limits have been increased. See HELP SLIMIT for details.

=> d l58 que stat;s l58(l)(mixt? or combinator?)

L1 STR



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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 25

STEREO ATTRIBUTES: NONE
L58 326 SEA FILE=CASREACT SSS FUL L1 (3520 REACTIONS)

100.0% DONE 12117 VERIFIED   3520 HIT RXNS   326 DOCS
SEARCH TIME: 00.00.04

```
         21697 MIXT?
           415 COMBINATOR?
L59          1 L58(L)(MIXT? OR COMBINATOR?)

=> d fhit cbibabs

'CBIBABS' IS NOT A VALID FORMAT FOR FILE 'CASREACT'

The following are valid formats:

ABS -------- GI and AB
ALL -------- BIB, AB, IND, RE, Single-step Reactions
APPS ------- AI, PRAI
BIB -------- AN, plus Bibliographic Data
CAN -------- List of CA abstract numbers without answer numbers
CBIB ------- AN, plus Compressed Bibliographic Data
DALL ------- ALL, delimited (end of each field identified)
IABS ------- ABS, indented with text labels
IALL ------- ALL, indented with text labels
IBIB ------- BIB, indented with text labels
IND -------- Indexing data
IPC -------- International Patent Classifications
ISTD ------- STD, indented with text labels
OBIB -------- AN, plus Bibliographic Data (original)
OIBIB ------- OBIB, indented with text labels

SBIB -------- BIB, no citations
SIBIB ------- IBIB, no citations

MAX -------- Same as ALL
PATS ------- PI, SO
SCAN ------- TI and FCRD (random display, no answer number.  SCAN
             must be entered on the same line as DISPLAY, e.g.,
             D SCAN.)
SSRX ------- Single-Step Reactions (Map, Diagram, and Summary for
             all single-step reactions)
STD -------- BIB, IPC, and NCL

CRD -------- Compact Display of All Hit Reactions
CRDREF ----- Compact Reaction Display and SO, PY for Reference
FHIT ------- Reaction Map, Diagram, and Summary for first
             hit reaction
FHITCBIB --- FHIT, AN plus CBIB
FCRD ------- First hit in Compact Reaction Display (CRD) format
FCRDREF ---- First hit in Compact Reaction Display (CRD) format with
             CA reference information (SO, PY).  (Default)
FPATH ------ PATH, plus Reaction Summary for the "long path"
FSPATH ----- SPATH, plus Reaction Summary for the "short path"
HIT -------- Reaction Map, Reaction Diagram, and Reaction
```

Summary for all hit reactions and fields containing hit terms

OCC -------- All hit fields and the number of occurrences of the hit terms in each field. Includes total number of HIT, PATH, SPATH reactions. Labels reactions that have incomplete verifications.

PATH ------- Reaction Map and Reaction Diagram for the "long path". Displays all hit reactions, except those whose steps are totally included within another hit reaction which is displayed

RX --------- Hit Reactions (Map, Diagram, Summary for all hit reactions)

RXG -------- Hit Reaction Graphics (Map and Diagram for all hit reactions)

RXL -------- Hit Reaction Long (Map, Diagram, Summary for all hit reactions)

RXS -------- Hit Reaction Summariers (Map and Summary for all hit reactions)

SPATH ------ Reaction Map and Reaction Diagram for the "short path". Displays all single step reactions which contain a hit substance. Also displays those multistep reactions that have a hit substance in both the first and last steps of the reaction, except for those hit reactions whose steps are totally included within another hit reaction which is displayed

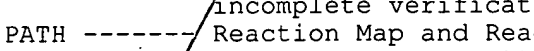
To display a particular field or fields, enter the display field codes. For a list of the display field codes, enter HELP DFIELDS at an arrow prompt (=>). Examples of combinations include: D TI; D BIB RX; D TI, AU, FCRD. The information is displayed in the same order as the specification. All of the formats, except CRD, CRDREF, FHIT, PATH, FPATH, SPATH, FSPATH, FCRD, FCRDREF, HIT, RX, RXG, RXS, SCAN, and OCC, may be used with the DISPLAY command to display the record for a specified Accession Number.

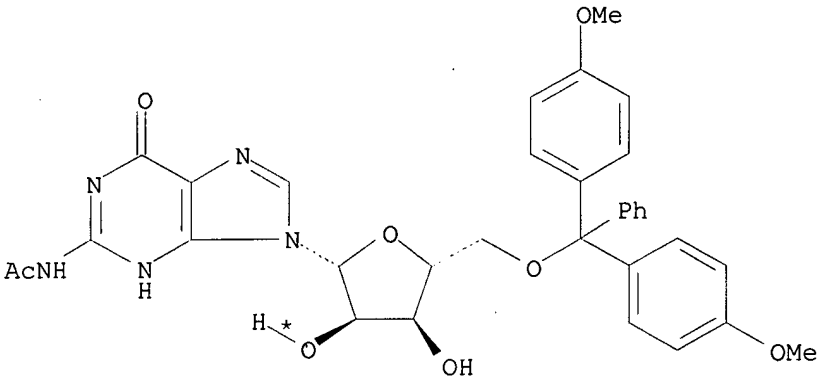
ENTER DISPLAY FORMAT (FCRDREF):

ENTER DISPLAY FORMAT (FCRDREF):fhit cbib abs

L59 ANSWER 1 OF 1 CASREACT COPYRIGHT 2001 ACS

RX(11) OF 12 COMPOSED OF RX(3), RX(7)





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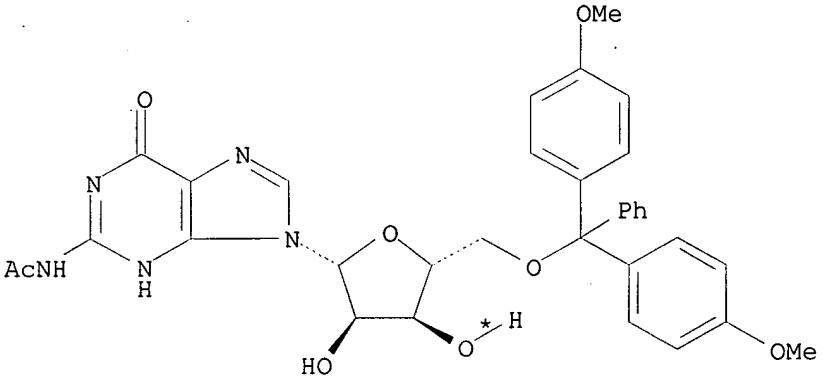

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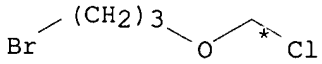
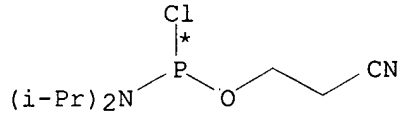
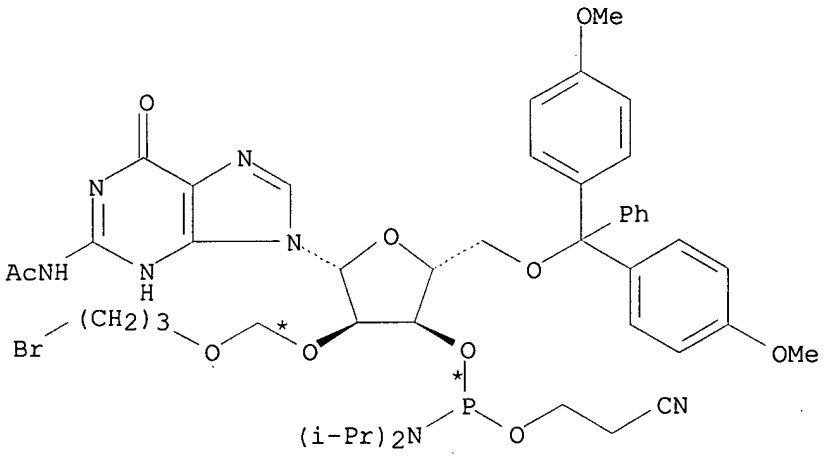


2 B



Q

2 STEPS



U
YIELD 83%

RX(3) RCT K **231957-27-0**

STAGE(1)
RGT E 683-18-1 Bu2SnCl2, F 7087-68-5 EtN(Pr-i)2
SOL 107-06-2 ClCH2CH2Cl

STAGE(2)
RCT B 54314-83-9
PRO L 289891-45-8, M 289891-49-2
NTE regioselective key step

RX(7) RCT L 289891-45-8

STAGE(1)
RGT F 7087-68-5 EtN(Pr-i)2
SOL 75-09-2 CH2Cl2

STAGE(2)
RCT Q 89992-70-1
PRO U **289891-53-8**
NTE (1:1 diastereomeric **mixt.**)

133:208110 Synthesis of 5'-C- and 2'-O-(bromoalkyl)-substituted ribonucleoside
phosphoramidites for the post-synthetic functionalization of oligonucleotides on solid support. Wu, Xiaolin; Pitsch, Stefan (Laboratorium fur Organische Chemie, ETH-Zentrum, Zurich, CH-8092, Switz.). Helv. Chim. Acta, 83(6), 1127-1144 (English) 2000. CODEN: HCACAV. ISSN: 0018-019X. Publisher: Verlag Helvetica Chimica Acta.

AB The prepn. of building blocks for the incorporation of 6'-O-(5-bromopentyl)-substituted .beta.-D-allofuranosylnucleosides and 2'-O-[(3-bromopropoxy)methyl]-substituted ribonucleosides into oligonucleotide sequences is presented. These reactive building blocks can be modified with a variety of soft nucleophiles while the (fully

protected) sequence is still attached to the solid support. As an example
of this strategy, we carried out some preliminary solid-phase substitution
and conjugation reactions with DNA sequences contg. a 2'-O-[(3-bromopropoxy)methyl]-substituted ribonucleoside and detd. the pairing properties of duplexes obtained therefrom.

=> log y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	95.69	3801.61

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-0.56	-16.44

STN INTERNATIONAL LOGOFF AT 14:12:33 ON 06 APR 2001

=> d l2 que stat;s l2 or l2

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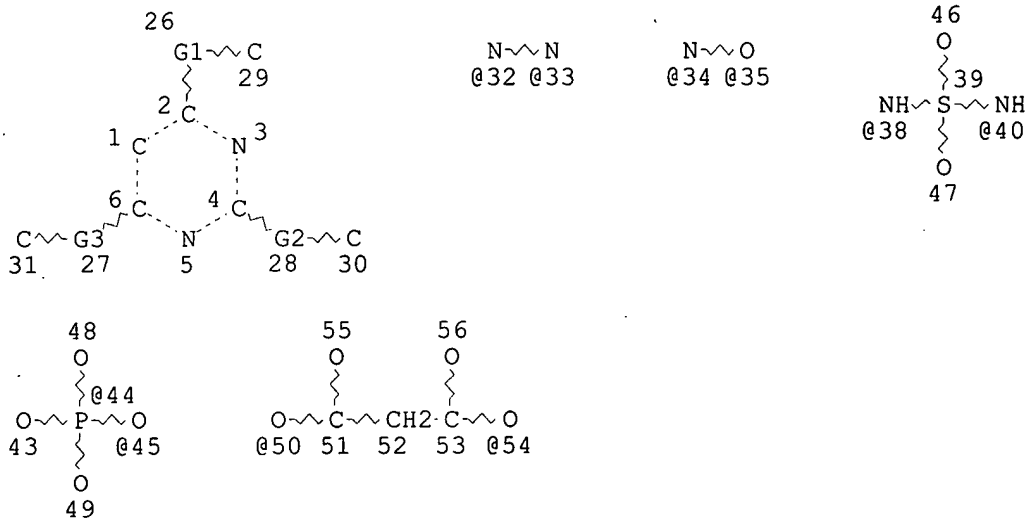

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VAR G2=32-4 33-30/34-4 35-30/38-4 40-30/N/O/S/SE/44-4 45-30/HY/50-4 54-30
VAR G3=32-6 33-31/34-6 35-31/38-6 40-31/44-6 45-31/N/O/S/SE/HY/50-6 54-31
NODE ATTRIBUTES:
NSPEC IS RC AT 29
NSPEC IS RC AT 30
NSPEC IS RC AT 31
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 33

STEREO ATTRIBUTES: NONE
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9.2% PROCESSED 472964 ITERATIONS 18919 ANSWERS
SEARCH TIME: 00.00.44

L3 18919 L2 OR L2

=> d 9000 18000 reg

9000 RN 147929-45-1 REGISTRY
18000 RN 77926-16-0 REGISTRY

=> s l3 range=(147929-45-1,)

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=> s l3 range=(77926-6-0,147929-45-1)

L5          9803 L2 OR L2

=> del l5 y;s l3 range=(77926-16-0,147929-45-1)


L5          9001 L2 OR L2

=> s l3 range=(,77926-16-0)

L6           920 L2 OR L2

=> act garciapt2/a

L7                STR
L8           5070 SEA FILE=REGISTRY SSS FUL L7

=> act garciapt3/a

L9                STR
L10           314 SEA FILE=REGISTRY SSS FUL L9

=> d l8 que stat;d l10 que stat;fil medl,caplus,biosis,embase;s l10 and l8

L7                STR
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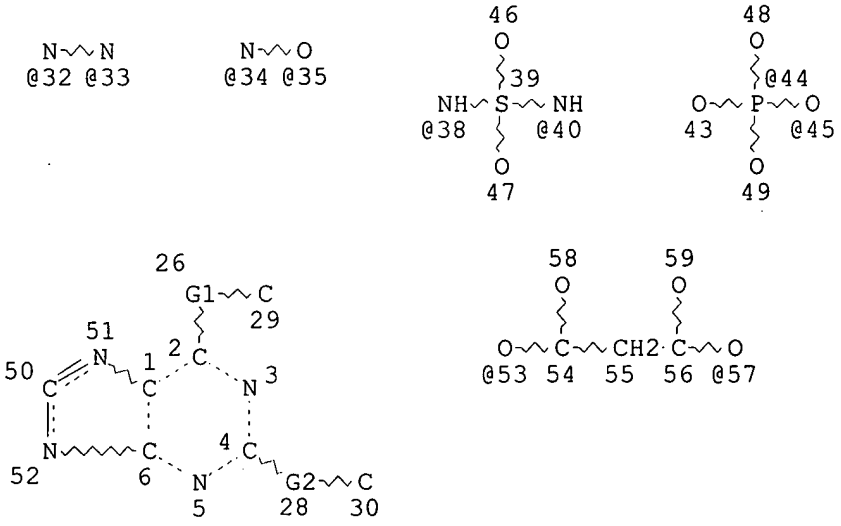


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NSPEC   IS RC     AT  30
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DEFAULT MLEVEL IS ATOM
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NUMBER OF NODES IS 34

STEREO ATTRIBUTES: NONE
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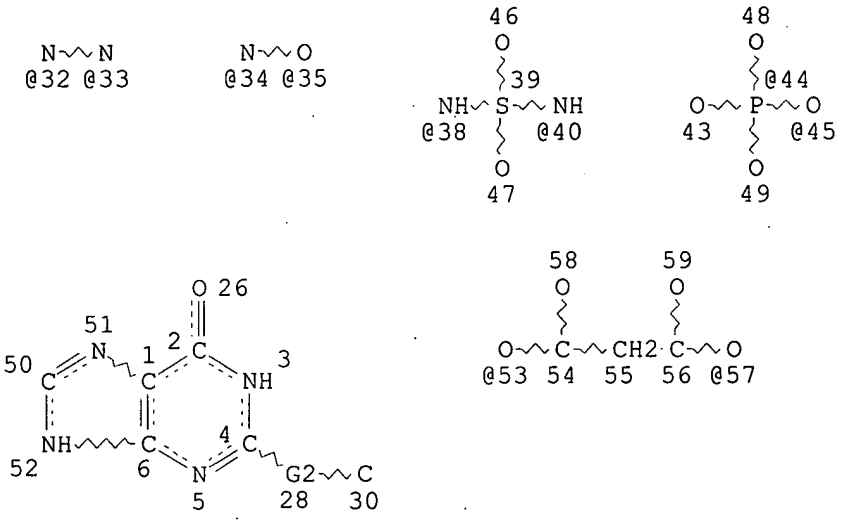
L9 STR



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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 33

STEREO ATTRIBUTES: NONE
L10 314 SEA FILE=REGISTRY SSS FUL L9

100.0% PROCESSED 78598 ITERATIONS 314 ANSWERS
SEARCH TIME: 00.00.16